

HORIZON EUROPE - Overview of the Topics 2026-2027

Work Programme Cluster 5 "Climate, Energy and Mobility"



According to the Work Programme: 2025 - 11 - 12

Destination: Climate sciences and responses for the transformation towards climate neutrality

	Opening	Deadline	Type of Action
<u>HORIZON-CL5-2026-07-D1-01: Next generation climate monitoring and related capabilities</u>	18.12.2025	15.04.2026	RIA
<u>HORIZON-CL5-2026-07-D1-02: Advancing European climate risk assessments</u>	18.12.2025	15.04.2026	RIA
<u>HORIZON-CL5-2026-07-D1-03: Economics of climate change and cost of inaction</u>	18.12.2025	15.04.2026	RIA
<u>HORIZON-CL5-2026-07-D1-04: Fighting disinformation and effectively communicating on climate change</u>	18.12.2025	15.04.2026	RIA
<u>HORIZON-CL5-2026-07-D1-05: Improving climate and weather models for Africa</u>	18.12.2025	15.04.2026	RIA
<u>HORIZON-CL5-2026-08-Two-Stage-D1-06: Closing knowledge gaps on Earth system science in support of global and regional assessments and climate policy</u>	18.12.2025	1. St.: 15.04.2026 2. St.: 08.10.2026	RIA
HORIZON-CL5-2027-01-D1-07: Advancing understanding, modelling and prediction of extreme events in a changing climate	17.11.2026 (upcoming)	04.03.2027 (upcoming)	RIA
HORIZON-CL5-2027-01-D1-08: Palaeoclimate science for a better understanding of Earth system dynamics	17.11.2026 (upcoming)	04.03.2027 (upcoming)	RIA
HORIZON-CL5-2027-01-D1-09: Assessing the performance of policy instruments to inform climate change mitigation action	17.11.2026 (upcoming)	04.03.2027 (upcoming)	RIA
HORIZON-CL5-2027-01-D1-10: Understanding and avoiding maladaptation to climate change	17.11.2026 (upcoming)	04.03.2027 (upcoming)	RIA
HORIZON-CL5-2027-01-D1-11: Africa-EU CO-FUND action on climate	17.11.2026 (upcoming)	04.03.2027 (upcoming)	COFUND
HORIZON-CL5-2027-01-D1-12: Better understanding and attribution of land and ocean carbon sources and sinks	17.11.2026 (upcoming)	04.03.2027 (upcoming)	RIA
HORIZON-CL5-2027-01-D1-13: Next generation scenarios for informing climate and sustainability transitions	17.11.2026 (upcoming)	04.03.2027 (upcoming)	RIA

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Destination: Cross-sectoral solutions for the climate transition

	Opening	Deadline	Type of Action
<u>HORIZON-CL5-2026-09-D2-01: Producing battery-grade materials for electrodes through sustainable processing and refining of raw materials or developing bio-based materials (BATT4EU Partnership)</u>	05.05.2026	15.09.2026	RIA
<u>HORIZON-CL5-2026-03-D2-02: Development of direct recycling processes (BATT4EU Partnership)</u>	18.12.2025	31.03.2026	RIA
<u>HORIZON-CL5-2026-10-D2-03: Integrated Production and Product Development for Next-Generation Lithium-based Batteries for Mobility (BATT4EU and Made in Europe Partnerships)</u>	04.06.2026	08.10.2026	IA
<u>HORIZON-CL5-2026-09-D2-04: Coordinated topic with India on recycling of EV batteries</u>	05.05.2026	15.09.2026	IA
<u>HORIZON-CL5-2027-02-D2-05: Improvement of Adaptability, Flexibility and Efficiency of Existing Recycling Processes (BATT4EU Partnership)</u>	03.12.2026	31.03.2027	IA
<u>HORIZON-CL5-2027-02-D2-06: Sustainable and Competitive Cell Production Techniques for Lithium-ion And Sodium-ion Batteries (BATT4EU Partnership)</u>	03.12.2026	31.03.2027	IA
<u>HORIZON-CL5-2027-04-Two-Stage-D2-07: Novel approaches towards next-generation battery concepts, leveraging the enabling role of innovative advanced materials (BATT4EU and IAM4EU Partnerships)</u>	15.12.2026	1. St.: 15.04.2027 2. St.: 07.10.2027	RIA
<u>HORIZON-CL5-2027-05-D2-08: Demonstration for Long-duration Battery Energy Storage Systems (BATT4EU Partnership)</u>	05.05.2027	15.09.2027	IA

Destination: Sustainable, secure and competitive energy supply

	Opening	Deadline	Type of Action
<u>HORIZON-CL5-2026-03-D3-01: Targeting key value chain components for increasing the competitiveness of renewable energy technologies in Europe</u>	18.12.2025	31.03.2026	RIA
<u>HORIZON-CL5-2026-04-Two-Stage-D3-02: Next generation of renewable energy technologies</u>	18.12.2025	1. St.: 31.03.2026 2. St.: 20.10.2026	RIA
<u>HORIZON-CL5-2026-09-D3-03: Innovative technologies and solutions to improve wind energy systems supporting the Strategic Energy Technology (SET) Plan on wind</u>	05.05.2026	15.09.2026	IA
<u>HORIZON-CL5-2026-11-D3-04: De-risking renewable fuel technologies through transnational pre-commercial procurement of renewable fuel industrial value chains</u>	04.08.2026	01.12.2026	HORIZON-PCP HORIZON Pre-commercial Procurement

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<u>HORIZON-CL5-2026-11-D3-05: Demonstration of solid biofuel supply and conversion to high efficiency CHP from fully sustainable regional value chains</u>	04.08.2026	01.12.2026	IA
<u>HORIZON-CL5-2026-11-D3-06: Resource assessment for deep sedimentary and basement reservoirs</u>	04.08.2026	01.12.2026	RIA
<u>HORIZON-CL5-2027-02-D3-07: Concentrated solar thermal systems for decarbonising industrial processes</u>	03.12.2026	31.03.2027	IA
<u>HORIZON-CL5-2027-02-D3-08: Co-funding Strategic Energy Technology (SET) Plan renewable fuel value chains at EU, national, regional, and local level</u>	03.12.2026	31.03.2027	COFUND
<u>HORIZON-CL5-2027-02-D3-09: Innovative technologies and solutions to improve wave and tidal energy systems</u>	03.12.2026	31.03.2027	IA
<u>HORIZON-CL5-2027-02-D3-10: Renewable Energy Valleys in Africa to increase energy security and energy access in Africa</u>	03.12.2026	31.03.2027	IA
<u>HORIZON-CL5-2027-07-D3-11: Demonstration of hydropower technologies for efficient and forward-looking refurbishment of existing hydropower plants</u>	04.08.2027	01.12.2027	IA
<u>HORIZON-CL5-2026-03-D3-12: Long-lifetime and optimised use of materials in recyclable Ag and In-free Si PV modules (EUPI-PV Partnership)</u>	18.12.2025	13.03.2026	RIA
<u>HORIZON-CL5-2026-03-D3-13: Industrial scale up and circularity pathway for IPV technologies (EUPI-PV Partnership)</u>	18.12.2025	13.03.2026	IA
<u>HORIZON-CL5-2026-11-D3-14: Improved system design for innovative PV applications (EUPI-PV Partnership)</u>	04.08.2026	01.12.2026	IA
<u>HORIZON-CL5-2027-02-D3-15: Production technologies for solar photovoltaics beyond the state-of-the-art (EUPI-PV Partnership)</u>	03.12.2026	31.03.2027	IA
<u>HORIZON-CL5-2027-07-D3-16: Industrial processes and equipment for innovative, reliable and scalable tandem technologies (EUPI-PV Partnership)</u>	04.08.2027	01.12.2027	IA
<u>HORIZON-CL5-2027-07-D3-17: PV based electrification of the economy: Designing & optimising PV systems supporting industrial electrification and promoting participation in electricity markets (EUPI-PV Partnership)</u>	04.08.2027	01.12.2027	IA
<u>HORIZON-CL5-2026-03-D3-18: Grid-forming capabilities for more resilient and RESbased electricity grids</u>	18.12.2025	31.03.2026	IA
<u>HORIZON-CL5-2026-03-D3-19: Affordable and sustainable primary equipment for Future-Ready multi-terminal HVDC Systems</u>	18.12.2025	31.03.2026	IA
<u>HORIZON-CL5-2026-03-D3-20: Hybrid AI-Control Framework for a next-generation grid-scale energy storage and system integration</u>	18.12.2025	31.03.2026	IA
<u>HORIZON-CL5-2026-03-D3-21: Novel solutions for off-grid storage of renewable energy for critical infrastructures</u>	18.12.2025	31.03.2026	RIA
<u>HORIZON-CL5-2026-03-D3-22: AI-driven forecasting algorithms for Grid and Consumer friendly Energy Sharing – Societal Readiness pilot</u>	18.12.2025	31.03.2026	IA

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<u>HORIZON-CL5-2026-11-D3-23: Data sharing to support the training and development of AI foundation models in the energy sector</u>	04.08.2026	01.12.2026	IA
<u>HORIZON-CL5-2027-02-D3-24: Large scale operational validation and upscaling of state-of-the-art (Generative) AI tools and models powering a next generation digital energy system</u>	03.12.2026	31.03.2027	IA
<u>HORIZON-CL5-2027-07-D3-25: Advanced TSO control rooms to enhance grid observability, stability and resilience</u>	04.08.2027	01.12.2027	IA
<u>HORIZON-CL5-2027-07-D3-26: Advanced Distribution Management Systems (ADSM) for more efficient and flexible distribution grids</u>	04.08.2027	01.12.2027	IA
<u>HORIZON-CL5-2027-07-D3-27: Integrated Approaches for Retrofitting Infrastructures with Innovative Energy Storage Technologies</u>	04.08.2027	01.12.2027	IA
<u>HORIZON-CL5-2027-07-D3-28: Community of practice - Data-Driven Decision-Making in Energy</u>	04.08.2027	01.12.2027	CSA
<u>HORIZON-CL5-2026-03-D3-29: Pre-commercial appraisal for CO2 aquifer storage</u>	18.12.2025	31.03.2026	IA
<u>HORIZON-CL5-2027-02-D3-30: Advancements in Direct Air Capture</u>	03.12.2026	31.03.2027	IA
<u>HORIZON-CL5-2027-02-D3-31: Support to the implementation of an EU policy framework for CO2 transport and storage infrastructure</u>	03.12.2026	31.03.2027	CSA
<u>HORIZON-CL5-2027-07-D3-32: Delivery of industrial CCUS clusters – Societal Readiness pilot</u>	04.08.2027	01.12.2027	IA
Destination: Efficient, sustainable and inclusive energy use			
	Opening	Deadline	Type of Action
<u>HORIZON-CL5-2026-09-D4-01: Researching the technical, social & economic factors impacting the energy performance of Smart Buildings (Built4People Partnership)</u>	05.05.2026	15.09.2026	RIA
<u>HORIZON-CL5-2026-09-D4-02: Low disturbance prefabrication approaches for deep renovation of multi-storey buildings (Built4People Partnership)</u>	05.05.2026	15.09.2026	IA
<u>HORIZON-CL5-2026-09-D4-03: Advanced data platforms to integrate whole life carbon in building information tools, assessments, and certification (Built4People Partnership)</u>	05.05.2026	15.09.2026	IA
<u>HORIZON-CL5-2026-09-D4-04: Validating policies and business models for affordable and sustainable housing (Built4People Partnership)</u>	05.05.2026	15.09.2026	RIA
<u>HORIZON-CL5-2027-05-D4-05: On-site robotic and automated techniques for building renovation and new construction</u>	05.05.2027	15.09.2027	IA

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<u>HORIZON-CL5-2027-05-D4-06: Thermal energy optimisation and waste heat recovery of high energy demand IT rooms in buildings or small edge data centres</u>	05.05.2027	15.09.2027	IA
<u>HORIZON-CL5-2027-05-D4-07: Integrating circularity in LCA-based modelling frameworks for renovation of buildings (Built4People Partnership)</u>	05.05.2027	15.09.2027	IA
<u>HORIZON-CL5-2026-09-D4-08: Full-scale demonstration of heat upgrade solutions in industrial processes</u>	05.05.2026	15.09.2026	IA
<u>HORIZON-CL5-2027-05-D4-09: Demonstration of industrial excess/waste heat conversion to mechanical or electrical power</u>	05.05.2027	15.09.2027	IA
Destination: Clean and competitive solutions for all transport modes			
	Opening	Deadline	Type of Action
<u>HORIZON-CL5-2026-05-D5-01: Large-scale demonstration of Heavy-Duty Battery Electric Vehicles (HD BEV) towards long-haul logistics operations (2ZERO Partnership)</u>	18.12.2025	14.04.2026	IA
<u>HORIZON-CL5-2026-05-D5-02: Energy-efficient software-defined EVs (2ZERO Partnership)</u>	18.12.2025	14.04.2026	IA
<u>HORIZON-CL5-2027-03-D5-03: Data-driven circular economy for e-mobility ecosystem (2ZERO Partnership)</u>	15.12.2026	14.04.2027	IA
<u>HORIZON-CL5-2027-03-D5-04: Demonstration of zero emission coaches and buses in long distance operations (2ZERO Partnership)</u>	15.12.2026	14.04.2027	IA
<u>HORIZON-CL5-2027-03-D5-05: Higher Voltage, Megawatt Charging System compatible, modular powertrain for Heavy Duty Vehicles (HDV) (2ZERO Partnership)</u>	15.12.2026	14.04.2027	IA
<u>HORIZON-CL5-2027-03-D5-06: Fire prevention and mitigation for EVs in confined areas (2ZERO Partnership)</u>	15.12.2026	14.04.2027	IA
<u>HORIZON-CL5-2026-05-D5-07: AI-assisted digital aircraft design, manufacturing and MRO, towards a competitive aviation</u>	18.12.2025	14.04.2026	RIA
<u>HORIZON-CL5-2027-03-D5-08: Sustainable aircraft circular design and additive manufacturing, towards a climate neutral aviation</u>	15.12.2026	14.04.2027	RIA
<u>HORIZON-CL5-2027-04-Two-Stage-D5-09: Noise reduction breakthroughs for new ultraefficient aircraft</u>	15.12.2026	1. St.: 14.04.2027 2. St.: 07.10.2027	RIA
<u>HORIZON-CL5-2026-06-Two-Stage-D5-10: Disruptive Technologies and Innovative Concepts for Energy Saving Onboard of long-distance ships (ZEWT Partnership)</u>	18.12.2025	1. St.: 14.04.2026 2. St.: 08.10.2026	RIA
<u>HORIZON-CL5-2026-05-D5-11: Ports of the future (ZEWT Partnership)</u>	18.12.2025	14.04.2026	IA

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<u>HORIZON-CL5-2026-05-D5-12: Shipyards of the future (ZEWT Partnership)</u>	18.12.2025	14.04.2026	IA
<u>HORIZON-CL5-2026-05-D5-13: Safety of renewable low and zero-carbon waterborne fuels in port areas: risk assessment, regulatory framework, and guidelines for safe bunkering, handling and storage (ZEWT partnership)</u>	18.12.2025	14.04.2026	CSA
<u>HORIZON-CL5-2027-03-D5-14: Onboard renewable energy solutions and energy saving measures to reduce the fuel consumption of ships by at least 55% (ZEWT Partnership)</u>	15.12.2026	14.04.2027	IA
<u>HORIZON-CL5-2027-03-D5-15: Prospective evaluation of nuclear power potential for shipping (ZEWT Partnership)</u>	15.12.2026	14.04.2027	CSA
<u>HORIZON-CL5-2027-03-D5-16: Autonomous vessels in short sea shipping and inland waterways</u>	15.12.2026	14.04.2027	IA
<u>HORIZON-CL5-2027-03-D5-17: Innovative Solutions for mitigating the environmental impact of waterborne transport in marine and aquatic Ecosystems (ZEWT Partnership)</u>	15.12.2026	14.04.2027	RIA
<u>HORIZON-CL5-2027-03-D5-18: Enhanced electric operation and battery durability (ZEWT Partnership)</u>	15.12.2026	14.04.2027	IA
<u>HORIZON-CL5-2026-06-Two-Stage-D5-19: Non-exhaust emissions in road and railway transport</u>	18.12.2025	1. St.: 14.04.2026 2. St.: 08.10.2026	RIA
<u>HORIZON-CL5-2027-03-D5-20: Assessing the effect of airport operations on air quality and noise in nearby communities</u>	15.12.2026	14.04.2027	RIA
Destination: Safe, Resilient Transport and Smart Mobility services for passengers and goods			
	Opening	Deadline	Type of Action
<u>HORIZON-CL5-2026-10-D6-01: Flagship-pilot: large-scale demonstrations of CCAM (CCAM Partnership)</u>	04.06.2026	08.10.2026	IA
<u>HORIZON-CL5-2026-10-D6-02: Geopolitical competition and socioeconomic resilience in CCAM: an innovation and policy roadmap for EU leadership (CCAM Partnership)</u>	04.06.2026	08.10.2026	RIA
<u>HORIZON-CL5-2026-10-D6-03: Generative AI for smarter CCAM: enhancing perception, decision-making, and validation (CCAM Partnership)</u>	04.06.2026	08.10.2026	RIA
<u>HORIZON-CL5-2027-06-D6-04: Holistic solutions for CCAM integration in critical scenarios (CCAM Partnership)</u>	03.06.2027	07.10.2027	RIA
<u>HORIZON-CL5-2027-06-D6-05: European CCAM knowledge hub and tools for safe and scalable deployment (CCAM Partnership)</u>	03.06.2027	07.10.2027	CSA
<u>HORIZON-CL5-2026-10-D6-06: Increasing competitiveness and resilience of multimodal freight transport and logistics for competitive supply chains</u>	04.06.2026	08.10.2026	IA

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<u>HORIZON-CL5-2026-10-D6-07: Supporting sustainable and smart urban mobility in Europe (CIVITAS)</u>	04.06.2026	08.10.2026	CSA
<u>HORIZON-CL5-2027-06-D6-08: Enhancing Mobility for All: affordable, reliable, and accessible multimodal transport for inclusive rural and urban connectivity – Societal Readiness pilot</u>	03.06.2027	07.10.2027	IA
<u>HORIZON-CL5-2026-10-D6-09: Road Safety and resilience of rural areas</u>	04.06.2026	08.10.2026	IA
<u>HORIZON-CL5-2026-10-D6-10: Enhanced resilience in multimodal passenger transport through digital technologies and generative and discriminative AI</u>	04.06.2026	08.10.2026	IA
<u>HORIZON-CL5-2027-06-D6-11: Enhancing Resilience and Accuracy in Positioning, Navigation, and Timing (PNT) Systems and e-conspicuity solutions</u>	03.06.2027	07.10.2027	IA
<u>HORIZON-CL5-2027-06-D6-12: Support for dissemination events in the field of Transport Research</u>	03.06.2027	07.10.2027	CSA

Key:
RIA: Research and Innovation Action
IA: Innovation Action
CSA: Coordination and Support Action
COFOUND: Action co-funded by the EUKOM